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Experimental study of reversibility and irreversibility in the evolution of the nuclei spin system of19f in caf2

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Abstract

The relationship of reversibility and irreversibility in the evolution of dipole operators in the density matrix of19F nuclei spin system in CaF2 is investigated. A magic echo due to these operators has been observed and studied. The behaviour of the dipole magic echo signals proved different for the cases of operators having diagonal and non-diagonal matrix elements. The interpretation of the observed effects involves the theory of mixing in thermodynamical systems. © 1986 The Institute of Physics.

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